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9118 N 85th Street
Milwaukee, WI 53224
February 12, 1993

Federal Communications Commission
1919 M Street, NW.
Washington, DC 20554

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Dear Sir or Madam:

This letter is to voice my concern regarding the proposed ban on ~~scanners~~ frequency converters and other devices capable of monitoring cellular phones in the 800 MHz radio band. Reference your document numbers 47 CFR Parts 2 and 15 [ET Docket No. 93-1; FCC 93-1].

While I am a scanner owner (and soon to be a licensed amateur radio operator), I personally have no interest in monitoring the conversations of others over the cellular bands. However, many people do, no doubt, monitor the cellular bands for either recreational or covert purposes. My concern here is that enacting such a law will simply cater to the cellular industry lobbyists who desire to create a FALSE SENSE OF SECURITY for users of cellular phones. They can then go on marketing their poor, unsecure systems with no more R&D effort. Creating such a law will only hurt the "casual" scanner user or amateur radio operator. It will in no way prevent access to such receivers by those who have criminal intent. I am both an electrical engineer and radio monitoring enthusiast and would like to make clear to you the reasons behind my above statements.

Let's assume such a law IS enacted. What are my options as a criminal who still wants to monitor cellular communications? We will ignore here the incredible amount of cellular capable scanners already out there. (No doubt current owners of cellular-capable scanners will be able to sell them for a hefty price once your law is enacted. Some individuals may even stock up now while they're still available.)

My \$400.00 amateur radio hand-held transmitter receives (and scans) the entire 800 MHz spectrum. Most stores and mail order companies that sell amateur radio equipment do not verify that the purchaser is, in fact, a licensed radio amateur. Are you going to outlaw amateur radio equipment too?

A "down-converter" is a device that converts frequencies received on a higher frequency to a lower frequency that can be monitored by a device capable of receiving the lower frequencies. I myself can EASILY build an 800 MHz to 400 MHz down-converter. I can then feed it's output into the input of my "non-cellular" scanner and receive the entire cellular spectrum. While you may be able to outlaw their manufacture and sale, you cannot prevent the manufacture and sale of "educational" down-converter kits or down-converter schematics. The demand will certainly be there. The supply will follow! How can you make illegal the dissemination of knowledge?

Let's assume I cannot buy a down converter. If I really need to monitor cellular phones, a competent RF

On the basis of the above, it would appear that the proposed law is unenforceable. However, let's assume you have somehow successfully implemented everything so far described. I have one last argument for you. If I really must monitor those frequencies for my illegal and lucrative ventures, I can do so without a scanning receiver. I can buy a spectrum analyzer that quickly identifies the active frequencies on a given band. I can then quickly go to that frequency and monitor the conversation. As a criminal looking to make a profit on the intercepted information, I would be willing to pay for such a tool! I can call any of the manufacturers of electronic test equipment in the U.S. or Japan (Hewlett-Packard, Tektronix, IFR, Kikusui and many more) and order their latest RF spectrum analyzer/demodulator. After all, if companies are manufacturing cellular phones, they need test equipment to verify their operation. It may cost me \$5000.00, but I will be able to monitor any signal in almost any RF band! Or are you going to ban the manufacture of electronic test equipment too??

I am not at all involved in the sale or manufacturing of RF equipment. I am employed as a software engineer by a maker of medical electronics equipment. As an engineer employed by a strong U.S. company, let me voice what truly concerns me in this matter. Since it is obvious that criminals will still have easy access to cellular monitoring devices despite all your laws, there will be a demand for a truly secure method of mobile "cellular" communication. The challenge will be answered by the Japanese or some other group of foreigners who will develop a very secure method of digitization and encryption over the cellular bands. A potentially profitable US industry will again have been lost to foreign competition due to ridiculous laws enacted by congress and the rest of the U.S. government.

Please do not create such foolish and short-sighted laws. This includes laws that prevent the decryption of digitally encoded RF signals. Let the demands of the market (demands for privacy) drive the cellular industries products. Let the demand for privacy FORCE the US cellular industry to design a secure method of communications before someone else does. Or is it that you want easily intercepted and/or decrypted RF transmissions to be commonplace so that the CIA and NSA can more easily monitor the people of the United States?

Sincerely,

Kevin P. Jessup

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